

## COUNTRY ANALYSIS BRIEFS

# Nigeria

Last Updated: March 2006

## Background

***Nigerian economic growth primarily comes from the country's oil sector.***

Nigeria, Africa's most populous country, is experiencing its longest period of civilian rule since independence from the United Kingdom in 1960. Nigerian President Olusegun Obasanjo has ruled since his election in 1999. Prior to Obasanjo's election, the country had not held successful elections under a civilian government since independence. The Obasanjo administration has made it a priority to reform the Nigerian economy, which includes privatizing state-owned entities.



High oil prices were the driving force behind Nigeria's economic growth in 2005. The country's real gross domestic product (GDP) grew approximately 4.5 percent in 2005 and is expected to grow 6.2 percent in 2006. The Nigerian economy is heavily dependent on the oil sector, which accounts for 95 percent of government revenues. Even with the substantial oil wealth, Nigeria ranks as one of the poorest countries in the world, with a \$1,000 per capita income and more than 70 percent of the population living in poverty. In October 2005, the 15-member Paris Club announced that it would cancel 60 percent of the debt owed by Nigeria. However, Nigeria must still pay \$12.4 billion in arrears amongst meeting other conditions. In March 2006, phase two of the Paris Club agreement will include an additional 34 percent debt cancellation, while Nigeria will be responsible for paying back any remaining eligible debts to the lending nations. The International Monetary Fund (IMF), which recently praised the Nigerian government for adopting tighter fiscal policies, will be allowed to monitor Nigeria without having to disburse loans to the country.

## Oil

***Nigeria is the largest oil producer in Africa.***

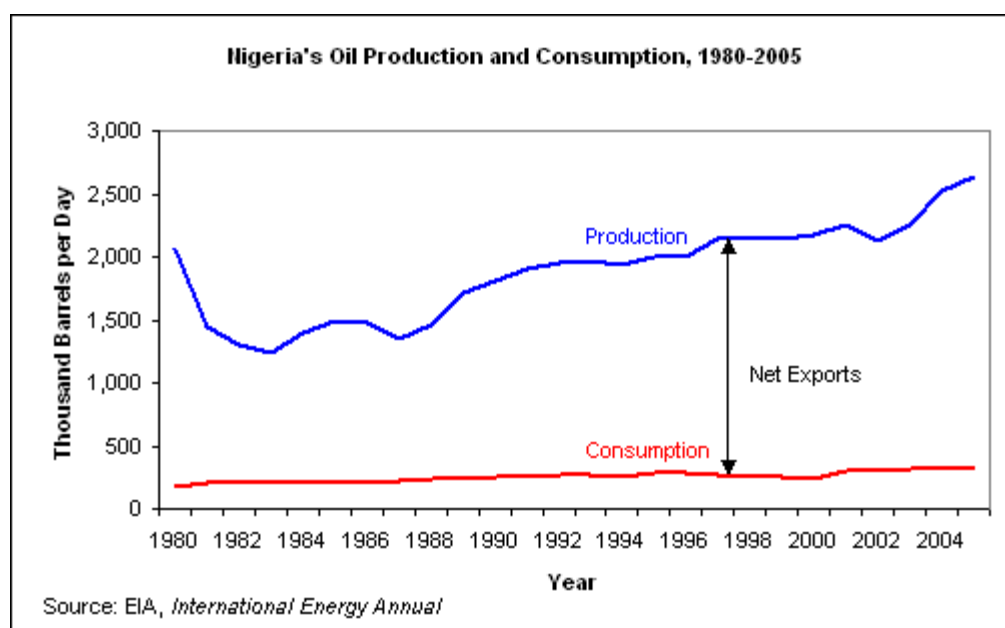
According to the *Oil and Gas Journal (OGJ)*, Nigeria had 35.9 billion barrels of proven oil reserves as of January 2006. The Nigerian government plans to expand its proven reserves to 40 billion barrels by 2010. The majority of reserves are found along the country's Niger River Delta, with the majority of oil located in approximately 250 small (i.e., less than 50 million barrels each) fields. However, at least 200 other fields contain undisclosed reserves. Approximately 65 percent of Nigerian crude oil production is light (35° API or higher) and sweet (low sulfur content), with blends Bonny Light (37° API) and Forcados (31° API) being the most exported.

### Sector Organization

Nigeria created the Nigerian National Petroleum Corporation (NNPC) in 1977. At that time, the NNPC's primary function was to oversee the regulation of the Nigerian oil industry, with secondary responsibilities for upstream and downstream developments. In 1988, the Nigerian government divided the NNPC into 12 subsidiary companies in order to better manage the country's oil industry. The majority of Nigeria's major oil and gas projects (95 percent) are funded through joint ventures (JVs), with the NNPC as the major shareholder. The largest JV is operated by Shell Petroleum Development Company (SPDC), producing nearly half of Nigeria's crude oil, with average daily output of approximately 1.1 million barrels per day (bbl/d). Additional foreign companies operating in JVs with the NNPC include ExxonMobil, Chevron, ConocoPhillips, Total and Agip. The remaining funding arrangements are comprised of production sharing contracts (PSCs), which are mostly confined to Nigeria's deep offshore development program.

### Production

Nigeria is the largest oil producer in Africa and the tenth largest producer of crude oil in the world. In 2005, total Nigerian oil production, including lease condensates, natural gas liquids and refinery gain, averaged 2.6 million bbl/d (of which 2.4 million bbl/d was crude oil). With the help of new projects coming online, the Nigerian government hopes to increase oil production to 3 million bbl/d in 2006 and 4 million bbl/d by 2010.



In recent months, Nigeria has experienced increased pipeline vandalism. In October 2005, a pipeline fire in the south-western Delta State of Nigeria resulted in the deaths of about 60 people. This was followed by a December attack, in which armed men in speed boats dynamited Shell's pipeline in the Opobo Channel. In January 2006, a pipeline attack from the Brass Creek fields to the Forcados terminal forced Shell to announce a force majeure on Forcados commitments to end-February. Additional attacks made on the pipeline and the Forcados terminal in February made it necessary for Shell to extend the force majeure beyond the end-February date. Shell estimates that 455,000 bbl/d of its oil production is currently shut-in because of the attacks. A February 2006 attack on the Escravos pipeline, that supplies oil to the Warri refinery, caused the refinery to shutdown. Officials are unsure of how long it will take to repair the damage. Nigeria had re-commissioned the Escravos-Warri pipeline in January 2005 after 18 months of repairing the damage caused by sabotage during the 2003 Niger Delta Crisis. In addition to pipeline vandalism, Nigeria has seen an increase in kidnappings of expatriate oil workers in the Niger Delta region. In January 2006, four foreign employees of Royal Dutch Shell were kidnapped and then held for 19 days before being released on "humanitarian grounds". In February 2006, nine additional oil workers were kidnapped in the Niger Delta region. The Movement for the Emancipation of the Niger Delta (MEND) is taking responsibility for the kidnappings and for blowing up a crude oil pipeline owned and operated by Royal Dutch Shell. As of March 3, 2006, six of the nine hostages were released, but MEND has stipulated numerous conditions that must be met before the remaining three hostages will be released. Chief among the conditions is the release of Ijaw prisoners and the establishment of a United Nations inquiry that would assess the Niger Delta

problem.

Despite the recent attacks on Shell's oil facilities, the company's deepwater Bonga field began producing oil at the end 2005. Bonga is estimated to hold recoverable reserves of 600 million barrels of oil. At peak production, the field will produce around 225,000 bbl/d and 150 million cubic feet (MMcf) of natural gas. Oil from the field will be stored in a floating production, storage and offloading (FPSO) unit, with a capacity of 2.0 million barrels.

ExxonMobil produces around 750,000 bbl/d of oil in Nigeria. The company plans to invest \$11 billion in the country's oil sector through 2011, with the hope of increasing production to 1.2 million bbl/d. The majority of the increase will occur at the 150,000-bbl/d Erha development, which is located on Block OPL 209. First production is expected in March 2006, with output increasing to 200,000 bbl/d by the end of the year. Oil from Erha will be stored in a FPSO, with a capacity of 2.2 million barrels oil. Very Large Crude Carriers (VLCC), capable of holding up to 300,000 deadweight tons will be used for exporting the oil from the terminal. ExxonMobil also operates the Yoho field, with current full-field output of around 150,000 bbl/d. Yoho contains around 400 million barrels of oil reserves. Yoho will be re-injected with associated natural gas to maintain field pressures and to eliminate natural gas flaring. The \$1.2 billion field is located in the shallow waters of Block OML 104. ExxonMobil's Bosi, and Eti/Asasa fields with capacities of 120,000 bbl/d, and 25,000 bbl/d, respectively, are scheduled to come online between 2006 and 2007.

Total, Chevron, Agip, and ConocoPhillips are also involved in the Nigerian oil sector. Output at Total's Amenam field reached 120,000 bbl/d in January 2005. The Amenam field contains reserves of around one billion barrels of oil equivalent. Total's Akpo field is expected to come online in 2008, with estimated output capacity of 225,000 bbl/d. In 2004, Chevron produced an average of 366,000 bbl/d of oil, while Agip produced 255,000 bbl/d of oil.

In past years, the amount of oil that Nigeria produced has led to disputes with the Organization of Petroleum Exporting Countries (OPEC), as Nigeria frequently exceeded its production quotas. The multinationals see Nigeria's OPEC production quota as a major hindrance to increased production at several deepwater fields. Currently, Nigeria's OPEC quota for crude production is 2.3 million bbl/d. In January 2006, Nigerian Minister of State for Petroleum, Edmund Daukoru, became the new OPEC president. Industry analysts have indicated that he will be faced with the double challenge of guaranteeing cohesion among OPEC members, while allowing Nigeria to increase its oil production.

### **Exports**

The majority of Nigerian crude exports go to markets in the United States and Western Europe, with Asia and Latin America becoming increasingly important destinations. In 2005, Nigerian petroleum exports to the United States averaged 1.15 million bbl/d. Nigeria has six export terminals including Forcados and Bonny (operated by Shell); Escravos and Pennington (Chevron); Qua Iboe (ExxonMobil) and Brass (Agip).

### **Exploration and Field Development**

Deepwater projects may represent the future of Nigerian petroleum by allowing multinational operators to avoid security risks inherent to the unstable Niger Delta region. In March 2005, a new licensing round began that offered a total of 77 deepwater and inland blocks. As of January 2006, 44 of the 77 blocks were awarded, but only 18 companies had paid their signature bonuses in full. In the past, the Nigerian government has taken underdeveloped blocks from multinational companies due to delays in their development. However, in one case, the Nigerian government returned four of 13 blocks taken from Royal Dutch Shell, while several of the remaining blocks were included in the March 2005 round. Nigeria's Department of Petroleum Resources (DPR), a licensing regulator agency, has promised that a new licensing round will be held in the third quarter of 2006.

In October 2004, Chevron announced that it would invest \$2.5 billion to develop the Agbami field, which is scheduled to come online in late 2007. In December 2004, NNPC concluded negotiations on a \$4 billion contract for development of the Agbami field. The field contains 1 billion barrels of recoverable hydrocarbons, and is located 70 miles from Nigeria's coast. The majority of Agbami lies in OPL 216, while one-third of it lies in the adjacent Block OPL 217. In February 2005, NNPC awarded Chevron a \$1.1 billion contract for the construction of a FPSO for the field, which will be undertaken by Daewoo Shipping and Maritime Engineering (South Korea). The FPSO is expected to export up to 250,000 bbl/d of oil and 450 million cubic feet per day (Mmcfd) of natural gas.

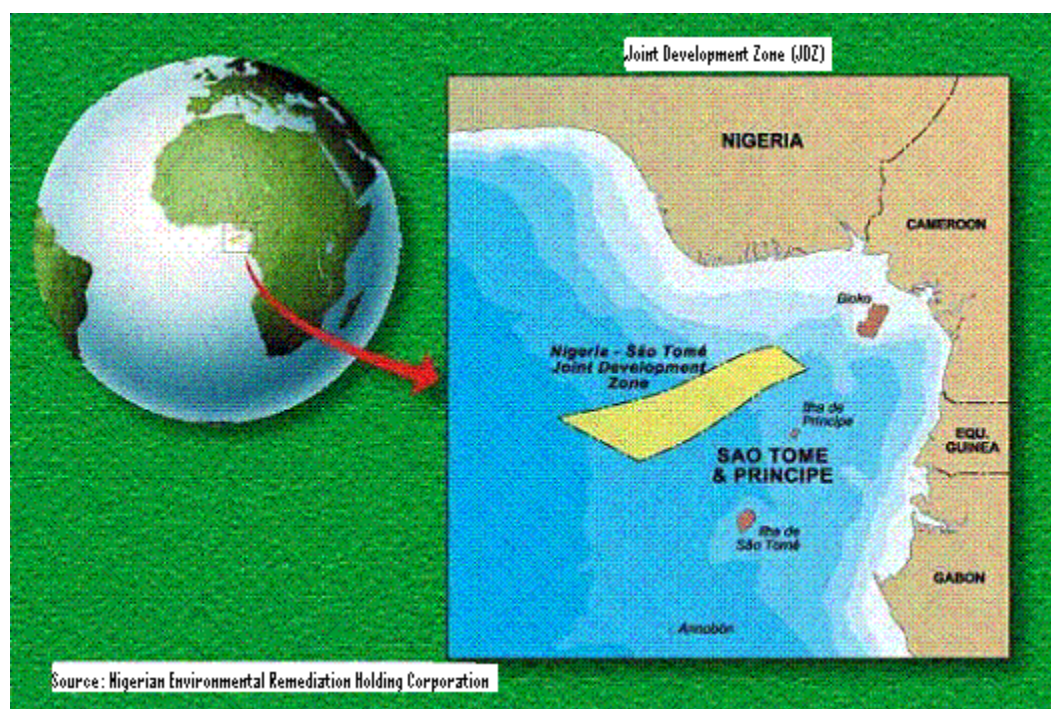
In October 2004, Total announced the discovery of a major oil deposit in deepwater block OPL 222, followed by a January 2005 discovery at the deepwater Usan field. The fifth successful appraisal well drilled in the field, Usan-6, had an initial flow rate of 5,800 bbl/d. Commercial production on the field is scheduled to begin in 2010, with initial output of 150,000 bbl/d. Block 222 is operated by Total (20 percent), in partnership with Chevron (30 percent), ExxonMobil (30 percent), and Nexen Petroleum (20 percent).

Chinese firms are also becoming increasingly involved in the Nigerian oil sector. In December 2004, Sinopec and NNPC signed an agreement to develop the Niger Delta's OML 64 and 66. Since the signing of the agreement, five exploration wells have been drilled in OML 64, with one discovery of hydrocarbons. In Block OML 66, twelve wells have encountered hydrocarbons. In July 2005, China and Nigeria reached a trade agreement in which Nigeria will supply China with 30,000 bbl/d of crude oil over the next five years.

Along with the increased foreign investment in Nigeria's oil sector, the Nigerian government has been working to promote local investment in the oil industry. Nigeria's Marginal Field Development Program (MFDP) provides tax breaks and government incentives to encourage local involvement in the oil sector. In November 2004, 16 local companies acquired marginal oil fields from SPDC under the MFDP. The fields are estimated to hold 150-200 million barrels of oil. First oil from the fields has yet to come online. Nigeria also has plans to increase local ownership in deep offshore projects during 2006. The Nigerian government has called for the current 15 percent local ownership to be increased to 45 percent during 2006 and to 70 percent by 2010.

#### *Joint Development Zone*

The [Joint Development Zone \(JDZ\)](#), shared by Nigeria and neighboring Sao Tome and Principe (STP), contains 23 exploration blocks and could potentially hold up to 14 billion barrels of oil reserves. Nigeria and Sao Tome have agreed to split revenues from the blocks on a 60:40 basis, respectively. Block One is currently the only block in the JDZ undergoing development. The block is controlled by Chevron (51 percent), with partners ExxonMobil (40 percent) and Equity Energy Resources (9 percent). If oil is located, Chevron plans to bring it onstream by 2010. Blocks Two through Six were also awarded, but due to disagreements between Sao Tome and Nigeria, approval of the PSAs has yet to occur. Meanwhile, several independent U.S. based companies that were awarded shares in the blocks have relinquished their awards. Pioneer Natural Resources stated a failure to agree to specific terms of operation on Block Two as the reason for its withdrawal from the project. Pioneer's withdrawal has opened the door for China's oil and gas company, Sinopec, to invest in the JDZ. In February 2006, the Joint Ministerial Council (JMC) asked the Joint Development Authority (JDA) to approve the remaining PSAs for the five blocks.





Development is also occurring in the waters surrounding the JDZ. In March 2005, Spinnaker Exploration (U.S.) purchased a 12.5 percent interest in Block OPL 256 from Ocean Energy, a subsidiary of Devon Energy. Drilling has commenced on the Tari 1 exploratory well at Block OPL 256, which is located off the Nigerian coast near the JDZ. Three wells are planned for the block.

### Refining and Downstream

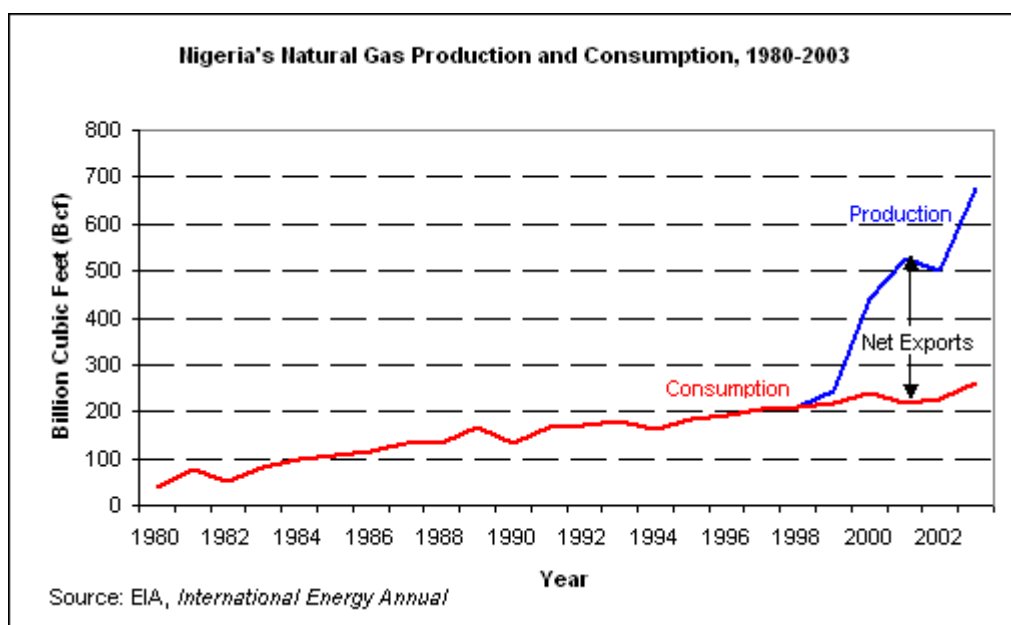
Nigeria's refining capacity is currently insufficient to meet domestic demand, forcing the country to import petroleum products. Nigeria's state-held refineries (Port Harcourt I and II, Warri, and Kaduna) have a combined nameplate capacity of 438,750 bbl/d, but problems including sabotage, fire, poor management and a lack of regular maintenance contribute to the current operating capacity of around 214,000 bbl/d. The Nigerian government is granting permits to build several independently-owned refineries in Nigeria. Sapele Petroleum Limited is waiting for final approval to construct a \$105-million, 120,000 bbl/d oil refinery in Delta State. The refinery is one of the more probable to be built and could save Nigeria as much as \$2 billion in costs for refined petroleum imports.

Nigeria is trying to privatize state entities by selling NNPC's four oil refineries, petrochemicals plants, and its Pipelines and Products Marketing Company (PPMC). However, multinational oil companies have shown little interest in investing in refinery privatization. The Nigerian government recently opened negotiations with Libyan, Indian, and Chinese investors. In July 2004, the Group Managing Director of NNPC announced that a two-year program was underway with Accenture and Shell Global Solutions to reengineer PPMC to make it competitive in global markets. Considerable opposition to the proposed measures have been voiced by the National Union of Petroleum and Natural Gas Workers (NUPENG) and the Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN), which fear that job losses and higher product prices will result from the privatizations. In February 2005, Majestic Oil (Sierra Leone) bought the Nigerian government's 48.4 percent stake in the West Africa Oil Refinery in Freetown. Majestic also acquired Unipetrol Nig LPC's 24.2 percent share, when the company failed to invest in the rehabilitation of the facility.

### Natural Gas

***Nigeria flares more natural gas than any other country in the world.***

The *OGJ* estimates that Nigeria had an estimated 185 trillion cubic feet (Tcf) of proven natural gas reserves as of January 2006, which makes Nigeria the seventh largest natural gas reserve holder in the world and the largest in Africa. In October 2004, Nigeria announced that its natural gas reserves could be as high as 660 Tcf. The government plans to raise earnings from natural gas exports to 50 percent of oil revenues by 2010. However, NNPC estimates that \$15 billion in private sector investments is necessary to meet its natural gas development goals by 2010.



The vast majority of natural gas found in Nigeria is associated, meaning that it occurs in crude oil reserves as free gas. Because many of the fields lack the infrastructure to produce the associated

natural gas, it is flared. Nigeria flares more natural gas than any other country in the world, with 43 percent of its total annual natural gas production being flared. NNPC estimates that Nigerian flared natural gas accounts for approximately 20 percent of the world total. Nigeria is working to end natural gas flaring by 2008. However, Shell announced in its 2004 People and Environment Annual Report that it would not be able to meet the 2008 goal of eliminating natural gas flaring.

### Production

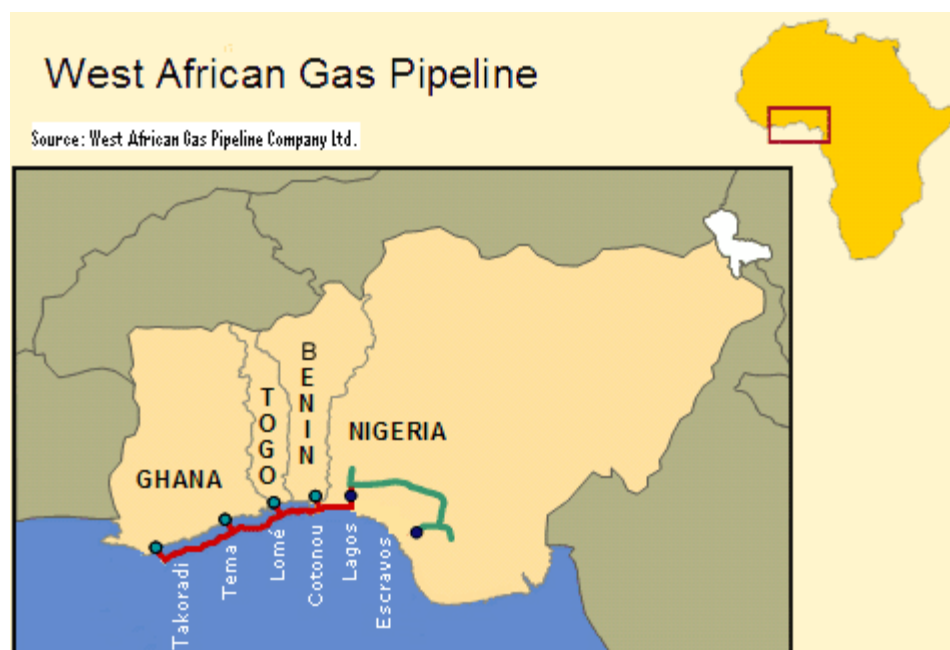
A significant portion of Nigeria's natural gas is processed into liquefied natural gas (LNG). Nigeria's most ambitious natural gas project, the \$3.8 billion NLNG facility on Bonny Island, was completed in September 1999. In January 2006, NLNG sent its first shipment of LNG exports to the United States from its newly-commissioned fourth train. The company's fifth train began operating in January 2006 as well. The additional two trains have increased annual production capacity to 17 million tons per year of LNG. Plans have been approved for a sixth train (to come online in 2007), which is expected to bring total capacity to 22 million tons per year. The facility is currently supplied from dedicated (non-associated) natural gas fields, but it is anticipated that, within a few years, half of the input natural gas will consist of associated (currently flared) natural gas from existing oil fields. In January 2005, ExxonMobil signed a memorandum of understanding (MOU) with NNPC to study the possibility of constructing a second LNG plant on Bonny Island to come online in 2010. The plant would produce around 4.8 million tons per year of LNG.

Plans for additional LNG facilities in Nigeria are also being developed. In January 2005, Chevron announced the possibility of constructing a \$7 billion LNG plant, OK-LNG, at Olokola in western Nigeria. The plant would have an initial capacity of 11 million tons per year and a maximum capacity of 33 million tons per year. Construction is expected to begin in 2006, with completion in 2009. Chevron's final investment decision (FID) deadline for the project is March 2006. If Chevron decides not to financially commit to the project, Shell has been named as a possible alternative operator. In December 2005, ConocoPhillips, Chevron and Agip met with NNPC to sign a shareholders agreement for the establishment of the \$3.5 billion Brass River LNG plant. If the project continues along the current timetable, its two LNG trains will be operational by late 2009. A FID for the project is scheduled to be made in September 2006.

Chevron's Escravos Gas Project (EGP) came online in 1997. In 2000, total capacity was 285 MMcf/d of natural gas. The facility's output capacity will be expanded to 630 MMcf/d of natural gas in 2007. Chevron is also working on the Escravos gas-to-liquids (GTL) project that is expected to have production capacity of 33,000 bbl/d. Completion of the GTL project is scheduled for 2009. However, the project has been slowed by community complaints over not employing local residents to work at the facility. It is likely that Chevron will look for state intervention to help resolve the issue. A year earlier, the Nigerian government halted the implementation of the Escravos GTL project due to high costs. Future plans for the project include linking the Escravos pipeline system with the [West African Gas Pipeline](#) (WAGP) for natural gas export to Benin, Togo and Ghana.

### Pipelines

Progress on the WAGP, which will deliver 140 MMcf/d of natural gas to power stations in Ghana, has been moving forward steadily. In November 2004, the World Bank approved a \$125 million investment guarantee for construction of the WAGP, and in December 2004, NNPC and its WAGP partners made a FID for implementation of the project. In May 2005, the first shipload of pipes arrived at Port Tema for the construction of the pipeline. The \$590 million, 420-mile pipeline will carry natural gas from Nigeria to Ghana, Togo, and Benin. Operational start-up of the project is expected during 2006, with initial capacity of 200 MMcf/d of natural gas. The pipeline is expected to function at a full capacity of 450 MMcf/d within 15 years. The Multilateral Investment Guarantee Agency (MIGA), and the International Development Association (IDA) are also helping to fund the WAGP by giving \$75 million and \$50 million, respectively.



In order to help promote domestic consumption of natural gas, two domestic distribution plans are being developed. The proposed \$580 million Ajaokuta-Abuja-Kaduna pipeline will supply natural gas to central and northern Nigeria, while the proposed Aba-Enugu-Gboko pipeline will deliver natural gas to portions of eastern Nigeria.

Nigeria and Algeria continue to discuss the possibility of constructing a Trans-Saharan Gas Pipeline (TSGP). The 2,500-mile pipeline would carry natural gas from oil fields in Nigeria's Delta region to Algeria's Beni Saf export terminal on the Mediterranean. It is estimated that construction of the \$7 billion project would take six years. The TSGP is currently in the study phase of development.

## Electricity

***Water shortages and maintenance issues continue to affect Nigeria's ability to produce electricity.***

The Nigerian power sector operates well below its estimated capacity, with power outages being a frequent occurrence. In 2003, total installed electricity capacity was 5.9 gigawatts (GW). Total electricity generation during 2003 was 15.6 billion kilowatthours (Bkwh), while total consumption was 14.5 Bkwh. According to Power Company Holding of Nigeria (PHCN), the country's peak electric demand in February 2006 was 7,600 megawatts (MW), but actual generation capability was 3,600 MW. The discrepancy between electricity demand and actual generation is mostly due to low water levels and inadequate plant maintenance. During 2005, electricity generation capacity fluctuated between 2,600 MW and 3,600 MW. The hydropower stations Kainji, Jebba, and Shiroro have seen generation affected by insufficient water, and the Lagos Egbin, Delta, and Port Harcourt Afam plants are also operating at below capacity due to poor maintenance.

Only 40 percent of Nigerians have access to electricity, the majority of whom are concentrated in urban areas. Despite endemic blackouts, customers are billed for services rendered, partially explaining Nigeria's widespread vandalism, power theft and PHCN's problems with payment collection. Nigeria's Bureau of Public Enterprises (BPE) hopes to see increased stability in Nigeria's electricity sector once the privatization of PHCN takes place.

## Sector Organization

The Nigerian power sector is controlled by state-owned Power Company Holding of Nigeria (PHCN), formerly known as the National Electric Power Authority (NEPA). In March 2005, President Obasanjo signed the Power Sector Reform Bill into law, enabling private companies to participate in electricity generation, transmission, and distribution. The government has separated PHCN into eleven distribution firms, six generating companies, and a transmission company, all of which will be privatized. Several problems, including union opposition, have delayed the privatization, which is now scheduled for 2006. In February 2005, the World Bank agreed to provide PHCN with \$100 million to assist in its privatization efforts.

### Foreign Investment

The Nigerian government has made an effort to increase foreign participation in the electric power sector by commissioning independent power producers (IPPs) to generate electricity and sell it to PHCN. In April 2005, Agip's 450-MW plant came online in Kwale in Delta State. The NNPC and JV partners, ConocoPhillips and Agip, provided the \$480 million to construct the plant. IPPs currently under construction include the 276-MW Siemens station in Afam, ExxonMobil's 388-MW plant in Bonny, ABB's 450-MW plant in Abuja, and Eskom's 388-MW plant in Enugu. Several state governments have also commissioned oil majors to increase generation including Rivers State, which contracted Shell to expand the 700-MW Afam station. The Nigerian government also approved the construction of four thermal power plants (Geregu, Alaoji, Papalanto, and Omotosho), with a combined capacity of 1,234 MW to meet its generating goal of 6,500 MW in 2006. In addition fourteen hydroelectric and natural gas plants are planned for completion by 2010.

China's EXIM Bank Su Zhong and Sino Hydro have committed to funding the Mambil (3,900-MW) and Zungeru (950-MW) hydroelectric projects. In addition, Sino Hydro proposed that it should construct the two power projects. Also, NNPC, in a JV with Chevron are to construct a 780-MW gas-fired thermal plant in Ijede, Lagos State. The project is expected to be constructed in three phases, with the first two phases expected to have capacity of 256 MW each. The plant is expected to be operational in 2007.

## Environment

**Oil spills, natural gas flaring and deforestation constitute some of Nigeria's major environmental challenges.**

While Nigeria's development of the oil sector has been good for the country's economy, oil sector development has had an adverse impact on the country's environment. Oil extraction in the Niger Delta region has caused severe environmental degradation, owing to the legacy of oil spills, lax environmental regulations, and government complicity during military regimes that once governed the country. Although the situation is improving with more stringent environmental regulations for the oil industry, marine pollution is still a serious problem. Air pollution from natural gas flaring, exhaust emissions from the explosion in car ownership, and electricity generators continue to leave Lagos shrouded in smog.

The use of solid biomass, such as fuel wood, is prevalent and constitutes a major energy source for rural Nigerians. The production and consumption of commercial renewable energy in Nigeria remains quite limited. With Nigeria's population continuing to increase, the pressure on the country's environment appears likely to increase as well, even with the added focus on cleaning up the Niger Delta and tightening environmental laws and regulations.

## Profile

### Country Overview

|                           |  |
|---------------------------|--|
| <b>President</b>          | Olusegun Obasanjo (since 29 May 1999)  |
| <b>Location</b>           | Western Africa, bordering the Gulf of Guinea, between Benin and Cameroon   |
| <b>Independence</b>       | October 1, 1960 (from UK)  |
| <b>Population (2005E)</b> | 128,771,988  |
| <b>Languages</b>          | English (official), Hausa, Yoruba, Igbo (Ibo), Fulani  |
| <b>Religion</b>           | Muslim 50%, Christian 40%, indigenous beliefs 10%  |
| <b>Ethnic Group(s)</b>    | Nigeria, Africa's most populous country, is composed of more than 250 ethnic groups; the following are the most populous and politically influential: Hausa and Fulani 29%, Yoruba 21%, Igbo (Ibo) 18%, Ijaw 10%, Kanuri 4%, Ibibio 3.5%, Tiv 2.5% |

### Economic Overview

|  |   |
|--|---|
| <b>Minister of Finance</b>                   | Ngozi Okonjo-Iweala                             |
| <b>Currency/Exchange Rate (3/3/06)</b>       | Naira (NGN) 128.778 NGN = US\$1                 |
| <b>Inflation Rate (Consumer Price Index)</b> | (2005E): 13.1% (2006F): 9.5%                    |
| <b>Gross Domestic Product</b>                | (2005E): \$77.0 billion (2006F): \$88.5 billion |
| <b>Real GDP Growth Rate</b>                  | (2005E): 4.5% (2006F): 6.2%                     |
| <b>Unemployment Rate</b>                     | (2005E): 2.9%                                   |
| <b>External Debt</b>                         | (2005E): \$25.8 billion (2006F): \$25.1 billion |



|                                   |   |
|-----------------------------------|---|
| <b>Exports (merchandise)</b>      | (2005E): \$35.9 billion (2006F): \$38.5 billion                                       |
| <b>Exports - Commodities</b>      | petroleum and petroleum products 95%, cocoa, rubber                                   |
| <b>Exports - Partners (2004E)</b> | US 48.2%, India 8.1%, Spain 7.4%, Brazil 5.5%, Japan 4.1%                             |
| <b>Imports (merchandise)</b>      | (2005E): \$27.5 billion (2006F): \$31.6 billion                                       |
| <b>Imports - Commodities</b>      | machinery, chemicals, transport equipment, manufactured goods, food and live animals  |
| <b>Imports - Partners (2004E)</b> | US 9.1%, China 8.8%, UK 8.7%, Netherlands 6.3%, France 6.1%, Germany 5.7%, Italy 4.7% |
| <b>Current Account Balance</b>    | (2005E): \$4.3 billion (2006F): \$2.3 billion   |

## Energy Overview

|   |   |
|---|---|
| <b>Minister of State for Petroleum</b>                | Edmund Daukoru  |
| <b>Minister of Power and Steel</b>                    | Liyel Imoke   |
| <b>Minister of Solid Minerals</b>                     | Obiaqeli Ezekwesili   |
| <b>Proven Oil Reserves (January 1, 2006E)</b>         | 35.9 billion barrels  |
| <b>Oil Production (2005E)</b>                         | 2,629.4 thousand barrels per day, of which 93% was crude oil.   |
| <b>Oil Consumption (2005E)</b>                        | 319.3 thousand barrels per day  |
| <b>Net Oil Exports (2005E)</b>                        | 1,310.1 thousand barrels per day  |
| <b>Crude Oil Refining Capacity (2006E)</b>            | 438.8 thousand barrels per day  |
| <b>Proven Natural Gas Reserves (January 1, 2006E)</b> | 184.7 trillion cubic feet   |
| <b>Natural Gas Production (2003E)</b>                 | 0.7 trillion cubic feet   |
| <b>Natural Gas Consumption (2003E)</b>                | 261.7 billion cubic feet  |
| <b>Net Natural Gas Exports (2003E)</b>                | 490.6 billion cubic feet  |
| <b>Recoverable Coal Reserves (2003E)</b>              | 209.4 million short tons  |
| <b>Coal Production (2003E)</b>                        | 0.1 million short tons  |
| <b>Coal Consumption (2003E)</b>                       | 0.1 million short tons  |
| <b>Electricity Installed Capacity (2003E)</b>         | 5.9 gigawatts   |
| <b>Electricity Production (2003E)</b>                 | 15.6 billion kilowatt hours   |
| <b>Electricity Consumption (2003E)</b>                | 14.5 billion kilowatt hours   |
| <b>Total Energy Consumption (2003E)</b>               | 1 quadrillion Btus*, of which Oil (64%), Natural Gas (27%), Hydroelectricity (8%), Coal (0%), Nuclear (0%), Other Renewables (0%) |
| <b>Total Per Capita Energy Consumption (2003E)</b>    | 7.9 million Btus  |
| <b>Energy Intensity (2003E)</b>                       | 7,278.1 Btu per \$2000-PPP**  |

## Environmental Overview

|  |   |
|--|---|
| <b>Minister of Environment</b>                                     | Helen Esuene  |
| <b>Energy-Related Carbon Dioxide Emissions (2003E)</b>             | 93.5 million metric tons, of which Natural Gas (52%), Oil (48%), Coal (0%)  |
| <b>Per-Capita, Energy-Related Carbon Dioxide Emissions (2003E)</b> | 0.8 metric tons   |
| <b>Carbon Dioxide Intensity (2003E)</b>                            | 0.7 Metric tons per thousand \$2000-PPP**   |
| <b>Environmental Issues</b>  | soil degradation; rapid deforestation; urban air and water pollution; desertification; oil pollution - water, air, and soil; has suffered serious damage from oil spills; loss of arable land; rapid urbanization |

**Major Environmental Agreements**

party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping, Marine Life Conservation, Ozone Layer Protection, Wetlands signed, but not ratified: none of the selected agreements

**Oil and Gas Industry**

|                                    |  |
|------------------------------------|--|
| <b>Organization</b>                | The Nigerian National Petroleum Corporation (NNPC) manages the state-owned oil industry. The NNPC holds 49% in the Nigeria Liquefied Natural Gas (NLNG) Company. |
| <b>Foreign Company Involvement</b> | British Gas, BP, Chevron, ConocoPhillips, Deminex, ENI/Agip, ExxonMobil, Nexen, Petrobras, Shell, Sinopec, Statoil, Sun Oil, Tenneco, Total                      |
| <b>Major Oil Fields</b>            | Bonga, Cawthron Channel, EA, Edop, Ekkulama, Escravos Beach, Forcados Yorki, Jones Creek, Meren, Nembe, Okan, Oso, Ubit  |
| <b>Major Terminals</b>             | Bonny Island, Brass River, Escravos, Forcados, Odudu, Pennington, Qua (Kwa) Iboe   |
| <b>Major Refineries</b>            | Port Harcourt-Rivers State (60,000), Warri (118,750), Kaduna (110,000), Port Harcourt-Alesa Eleme (150,000),   |

\* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

\*\*GDP figures from OECD estimates based on purchasing power parity (PPP) exchange rates.

**Links****EIA Links**

[EIA - Country Information on Nigeria](#)

[EIA - Independent Power Projects in Nigeria](#)

**U.S. Government**

[CIA World Factbook - Nigeria](#)

[U.S. Agency for International Development - Nigeria](#)

[U.S. Census Bureau - Trade with Nigeria](#)

[U.S. Embassy in Nigeria](#)

[U.S. Library of Congress Country Study - Nigeria](#)

[U.S. State Department's Background Notes - Nigeria](#)

[U.S. State Department's Consular Information Sheet - Nigeria](#)

[U.S. State Department's Travel Warning - Nigeria](#)

**Foreign Government Agencies**

[Bureau of Public Enterprises](#)

[Nigerian Embassy in the U.S.](#)

**Non-Governmental Organizations**

[African Development Bank: Nigeria](#)

[African Union \(formerly Organization of African Unity\)](#)

[All Africa News Service: Nigeria](#)

[BBC News Country Profile - Nigeria](#)

[International Energy Agency \(IEA\): Key Energy Indicators for Nigeria](#)

[International Monetary Fund \(IMF\): Nigeria](#)

[Nigeria.com](#)

[Nigeria Today](#)

[Nigeria Web](#)

[Nigeria World](#)

[Online Nigeria Portal](#)

[Stanford University African Studies: Nigeria](#)

[University of Pennsylvania African Studies Center - Nigeria](#)

[Voice of Nigeria](#)

[World Bank: Nigeria](#)

**Oil and Natural Gas**

[Chevron](#)

[ConocoPhillips](#)

[ExxonMobil](#)  
[Nigerian National Petroleum Corporation](#)  
[Shell](#)

**Electricity**

[Power Holding Company of Nigeria](#)

## Sources

Africa Energy and Mining  
Africa News  
Africa Oil and Gas  
Agence France Presse  
Alexander's Gas and Oil Connections  
AP Worldstream  
BBC Summary of World Broadcasts  
CIA World Factbook 2003 and 2004  
Dow Jones  
Economist Intelligence Unit (EIU) Viewswire  
Financial Times African Energy  
Global Insight  
Hart's Africa Oil and Gas  
International Monetary Fund  
Oil and Gas Journal  
OPEC Statistical Bulletin  
Panafrican News Agency  
Petroleum Intelligence Weekly  
Rigzone  
U.S. Energy Information Administration  
Global Insight Middle East and Africa Economic Outlook  
World Bank  
World Markets Research Centre

## Contact Info

Elias Johnson  
(202) 566-7277  
[Elias.Johnson@eia.doe.gov](mailto:Elias.Johnson@eia.doe.gov)

---